

COILS
AND
X-RAY TUBES
SWETT & LEWIS COMPANY
BOSTON MASSACHUSETTS

Coils and Tubes



Bulletin Number
Thirty-three

M A N U F A C T U R E D B Y

Swett & Lewis Company

Eighteen Boylston Street, Boston, Massachusetts

TERMS

- ☞ Prices in this bulletin are net.
- ☞ Remit by express or post-office money order or by New York draft. Add twenty-five cents to face of all checks, except on New York or Boston, to cover collection charges.

REFERENCES

- ☞ Customers unknown to us must give satisfactory references, or send draft with order, for which we will allow five per cent discount. We will ship C. O. D., provided a remittance of twenty per cent accompanies order. Charges for return of money to be borne by purchaser.
- ☞ Goods will be delivered f. o. b. freight or express, Boston, Mass. No charge for packing. Each piece of apparatus is carefully packed and no allowance will be made for loss or breakage in transit.
- ☞ Western Union Telegraph code used. Telegraph and cable address, "Swettxray."
- ☞ When in Boston, we shall be glad to have you make your headquarters at our office.

BULLETINS

- ☞ We should be glad to send the following bulletins to all interested. Preceding bulletins are out of date.

Number Twenty-eight	Kinraide Coil and Accessories.
Number Twenty-nine	"Why?" A List of Testimonials.
Number Thirty	Directions for Operating Coil.
Number Thirty-one	List of Sample Coil Outfits.
Number Thirty-two	Electrical Novelties
Number Thirty-three	This one.
Number Thirty-four	Finsen and Violet Ray Apparatus.

- ☞ This latter bulletin will be up-to-date and will include several new and improved pieces of apparatus. Be sure and get it before purchasing.
- ☞ Your special attention is called to the announcement on page 19 of this bulletin, and to note the greatly reduced price of the Kinraide Coil.
- ☞ Note rebate for return of tube terminals, on page 9.
- ☞ Prices in this bulletin supersede all others.

X-Ray Tubes

The question of X-ray tubes is a most important one, especially as many of the users are at so great a distance from the manufacturer. It is with pleasure we have to announce that we have been in the business of tube manufacture since early in 1896, and have sold many thousand satisfactory tubes.

We are better fitted now, than ever before, to supply tubes of all kinds, as the factory is equipped with new and improved machinery and a corps of skilled men. The tubes are made with great care and selected to fit each case.

The external terminals of all the tubes are very strong and heavy, and the user may rest assured that there will be no trouble from breakage at this point. The glass used is of the finest kind, and offers little or no obstruction to the passage of the X-ray.

In the following pages, we shall illustrate our standard tubes for various pieces of apparatus. Special tubes for experimental work to order.

The bulbs are all hand-blown, and are as thin as it is possible to get them, and yet be sure that they will withstand the atmospheric pressure and the shocks of shipment.

The bulbs are well proportioned, and are uniform in size. No very large bulbs are made, as our experience has shown that nothing is gained, and strength is sacrificed. A little calculation will show that the total pressure on a bulb of eight inches or more in size is enormous, and unless the walls of the tube are very thick, the danger of collapse is great. Thick walls mean obstruction to the rays.

Great care is taken in pumping all of the tubes manufactured by us, and as a result they have a nearly stable vacuum. This fact is a great help to the user.

Adjustable Vacuum Tubes

Adjustments may be divided into two classes; those which are dependent on a chemical as a means of lowering the vacuum, and those which are dependent on the porosity of a platinum tube. The tubes listed in this bulletin may be furnished either way, but with the static tubes the latter method is advised.

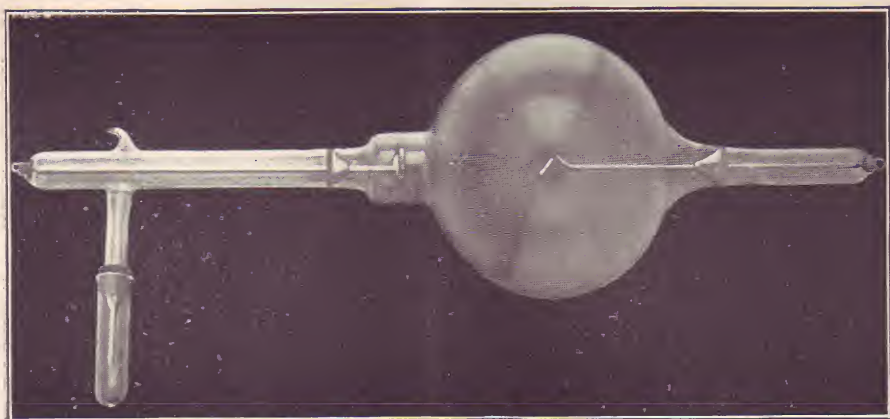
With the chemical adjustment, a glass tube is attached to the main or X-ray tube and partly filled with a chemical which gives off a gas when heated, and re-absorbs it on cooling.

Two methods may be used to operate this adjustment. The first is heating the adjusting bulb with the flame of a lamp or a match. The only objection to this is that too much gas may be driven off. The second, and better way, is to allow a spark from the coil or static to pass through the chemical. By this means, very close regulation may be had.

With the other regulator, a very thin platinum tube is sealed on to the main tube in the same position as the chemical regulator. When not in use, this regulating tube is protected against mechanical injury by a glass cap.

If the vacuum be too high, the platinum tube may be heated with a flame until it gets nearly or quite red hot. A little gas passes through the walls of the platinum tube into the X-ray tube and ceases instantly upon the removal of the flame. If the tube is excited while this is being done, the vacuum may be lowered to just the desired point. No gas is re-absorbed, so that there will be little or no rise in vacuum if the tube is allowed to stand. The opposite is true with the chemical regulator.

It is strongly advised that tubes be purchased with regulators of some kind as the life of the tube is much longer, better satisfaction is secured in operation and a large portion of the repair charges may be saved.



Type D, for Largest Static Machines

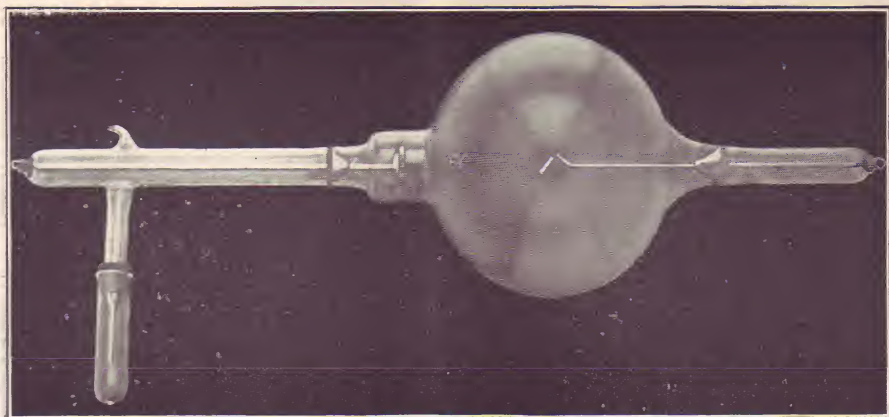
This tube is an improvement over the old Type J, which has been on the market for some years. The bulb is about five and one-half inches in diameter and the tube eighteen inches long. The great length is an advantage, as it prevents the current from passing over the outside of the glass, and prevents puncture.

The anode is of large size and supported in such a way that its surface is smooth, thus insuring sharp definition and accurate focus. The cathode is of good size, very thick, of proper curvature, and placed in proper relation to the walls of the tube.

Both anode and cathode terminals are supported near their entrance into the bulb, so that it is impossible to get them out of place without breaking the tube. This is an especially good tube for long distance shipments.

These tubes are specially recommended with the platinum regulator. When the regulator is used, they are sent out with a high vacuum, and may be lowered to just the right point to fit the machine and work in hand at that time.

Type D with adjustment	\$11.00.	Code word, Demeterent
Type D without adjustment	9.00.	Code word, Demeter



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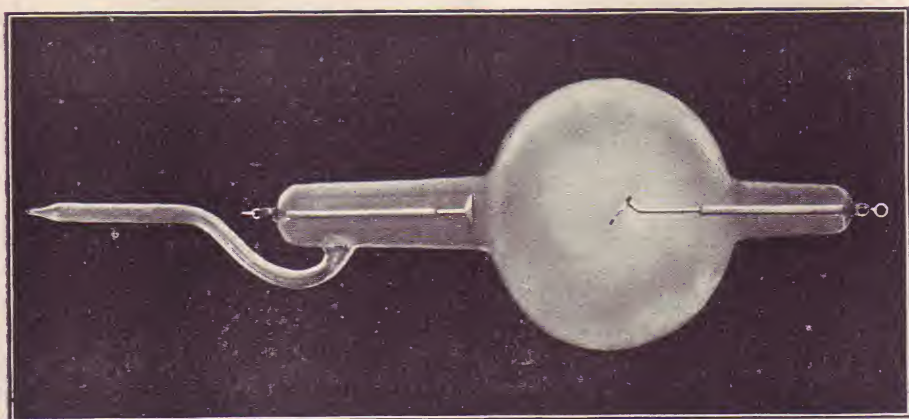
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Type D without adjustment	9.00.	Code word, Demeter

The detail and definition obtainable are unsurpassed and the tube is bound to be a general favorite with all static machine users.

Type J will be no longer manufactured and the D tube will be sent in all cases when the older form is ordered.



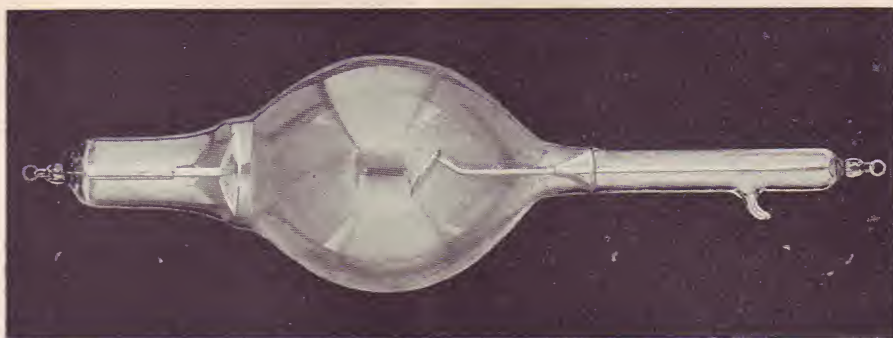
Type M, for Large Static Machines

This tube is probably as well known as any now on the market, and has been seen or used by the majority of X-ray operators.

The bulb is about five and one-half inches in diameter, and the tube, including handle, fifteen inches long. What was said regarding the terminals of Type D fully applies to this tube, except that they are not supported at their entrance to the bulb.

The tube is essentially for static use, and is without doubt the best on the market, for a low cost. The definition and detail obtained are excellent.

Price without adjustment	\$8.00.	Code word, Demesnia
Price with adjustment	10.00.	Code word, Demetendum



Type W, for Medium Size Static Machines and Small Coils

This tube is really a small size D and is intended for static machines, of about six revolving plates, and small coils. Size, four inches in diameter, fourteen inches long.

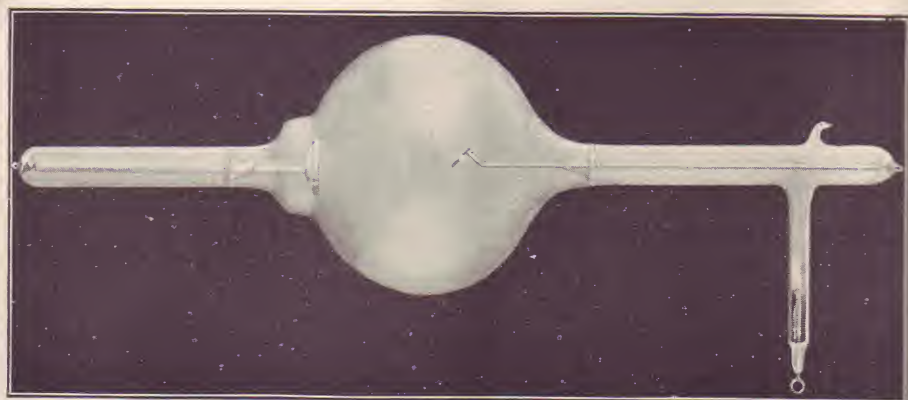
Price with adjustment	\$8.75.	Code word, Demouvoir
Price without adjustment	6.75.	Code word, Demouler

Type S, for Small Static Machines and Coils

This tube is still smaller, being three and one-fourth inches in diameter and twelve inches long. Very many of these have been sold and are giving good satisfaction.

Price with adjustment	\$7.00.	Code word, Dempsters
Price without adjustment	5.00.	Code word, Demoveo

The terminals of this tube are made with as great care as in the larger and more expensive tubes. This size is recommended for all small apparatus.



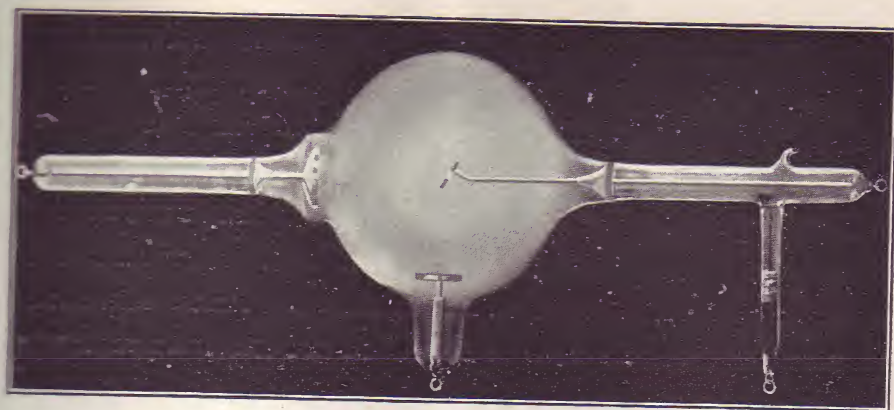
Type K, for Large Direct Current Coils

This tube is of the same size and shape as the Type D, but is designed for much heavier work. The anode is made of very heavy platinum, supported on a steel rod. It may be heated to a bright red, and held at this point for a long time without danger of injury to the tube or anode. The definition and penetration are exceptionally good.

The tube is fitted with a chemical adjustment, which may be operated either by heat or spark. The vacuum may be held at any desired point for long periods. If too much gas is driven off, it will be re-absorbed, if the tube is allowed to rest for a short time.

Price	\$12.00.	Code word, Delustro
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The platinum tube regulator may also be used with this and the following tube, and will be furnished for the same price. In ordering, please specify which kind of regulator is desired. The chemical regulator will be furnished in all cases unless otherwise ordered.



Type H, for Alternating Current Coils only

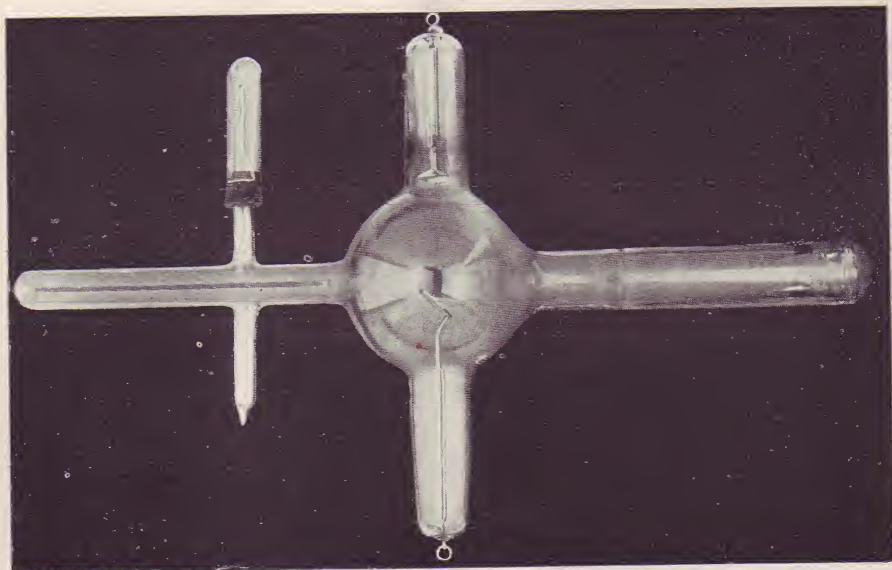
This tube is the same as Type K, except that a second cathode is placed back of the anode, and may be used in connection with the anode, or separately, as desired. If the second cathode is used as recommended, the life of this tube is much extended, and a large portion of the blackening is prevented. This tube will stand as hard usage as the previous one. The definition and penetration are fine.

Price	\$14.00.	Code word, Delusively
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A credit of ten per cent will be allowed from the purchase price of all tubes listed in this bulletin for the return of the complete terminals of a broken tube of the same kind.

This rebate will be allowed only toward the price of new tubes purchased at time of return of old terminals, and will in no case be paid in cash.

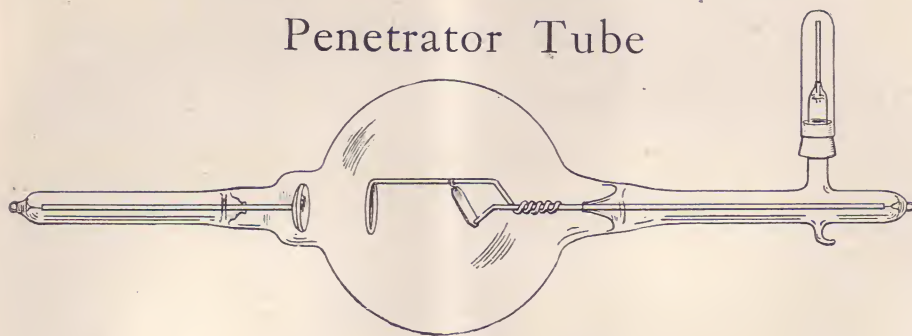
X-Ray Tubes for Cavities



To meet the demand for a tube that may be used in the throat or vagina, we have designed a simple, strong, and convenient one. The bulb and all but the end of the tube are made in such a way that they are opaque to the X-ray. The end of the tube, however, is transparent to the ray, and may be brought nearly, or quite, into direct contact with the diseased area. This reduces the time necessary for exposure, and increases the efficiency of the treatment. The terminals are so situated that the wires may be kept well away from the patient. The tube is substantially built, and the platinum tube regulator is supplied in all cases. This tube is recommended for work where small areas are to be treated, or for internal work.

Price	\$14.00	Code word, Demureness
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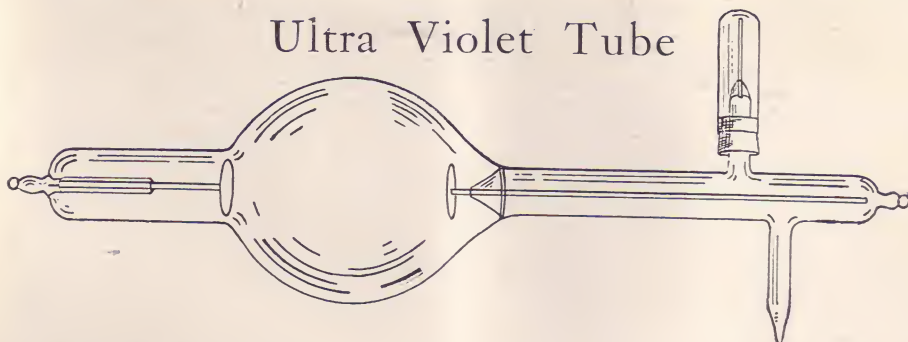
Penetrator Tube



Many users of tubes claim that the insertion of a ring of metal between the cathode and anode, and attached to the latter, will give the tube greater penetration at a low degree of vacuum.

This attachment may be added to any of the regular forms of tubes for an additional price of \$0.75

Ultra Violet Tube



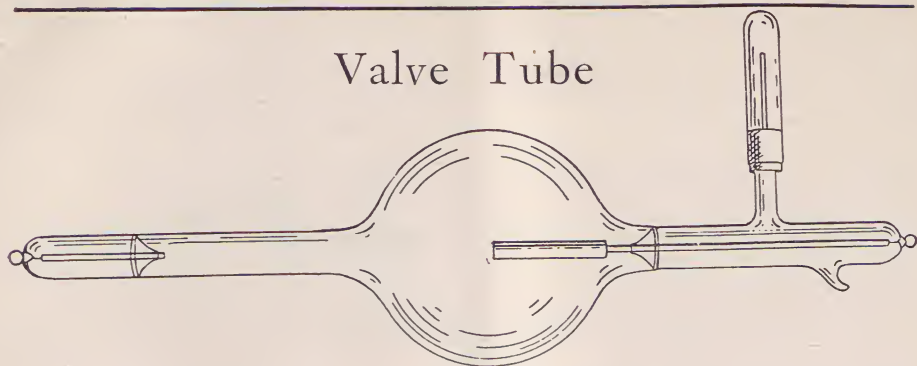
The above tube is filled with special gases before exhaustion and when excited by either a coil or static, in the same manner as an X-ray tube, gives off a great quantity of Ultra Violet rays.

A platinum barium cyanide screen will fluoresce brilliantly in any part of a large room with one of these tubes running.

A regulating device is furnished with this tube, as shown in cut, so that the vacuum may be held at any point. When running, the color effect in the tube is brilliant and striking. Useful in treating skin diseases.

Price \$7.00 Code word, Dentones

Valve Tube

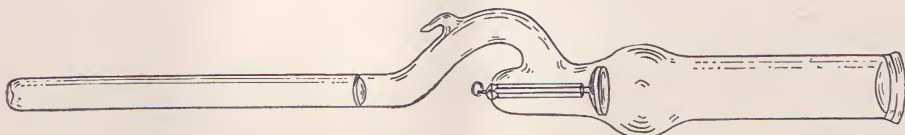


By introducing one of these tubes in series with an X-ray tube excited by a coil, many or all of the reverse waves may be choked back or totally retarded. Tubes similar to this are much used by foreign operators.

The resistance of these tubes depends on the method of connection. With the current flowing in one direction it may be as high as three inches; in the other direction only a quarter of an inch. A vacuum regulator is furnished on each tube.

Price	\$7.00	Code word, Depontabas
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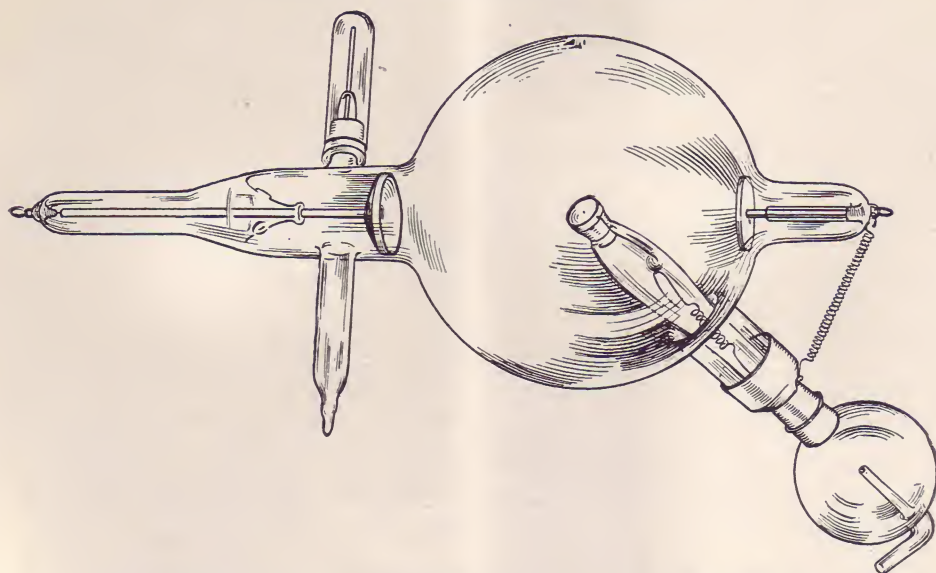
Lens Tube *(Patented)*



As shown in the illustration, the electrode is not dissimilar to No. 2, page 15, except that its end is flat and of crystal, which will allow the Ultra Violet rays to pass through the end of the tube only. Wherever the tube touches the patient, the high frequency effects are obtained and a plentiful stream of Ultra Violet rays is thrown through the lens. In ordering, state diameter wanted. It is manufactured in sizes up to one and a half inches in diameter. The electrode may be operated on either coil or static machine.

Price	\$10.00	Code word, Desempeco
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Water Cooled Tube



In this tube we have incorporated all the good points of our other tubes, including massive anode, supported cathode and the platinum tube adjustment.

A large amount of water is brought into direct contact with the anode, thus keeping it cool even under very hard usage. The water reservoir holds a comparatively large amount, affording a good opportunity for circulation. The tube may be run long and hard without lowering the vacuum.

Price	\$30.00	Code word, Derivamos
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A credit will be allowed for return of terminals in case of breakage.

Vacuum Electrodes

To meet the demand for a high-grade, substantial vacuum electrode, we have designed and manufactured those shown in the following cuts. These electrodes are made from a special glass, which prevents puncture. They are carefully pumped to the right degree of vacuum to produce the best color effects.

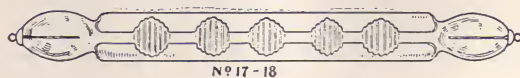
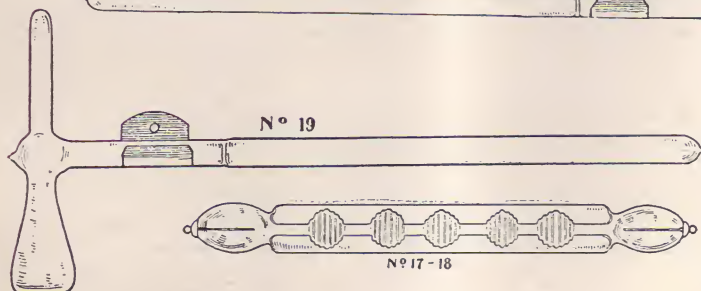
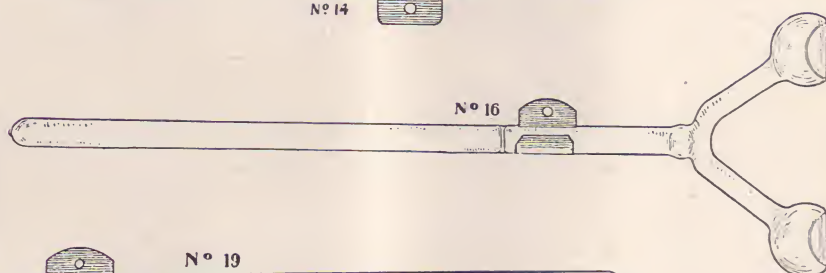
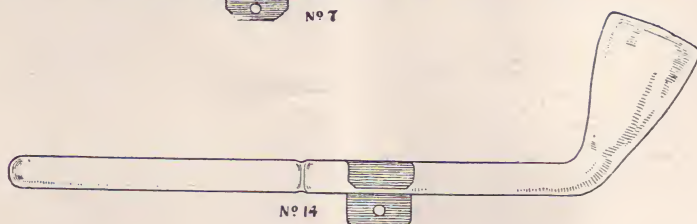
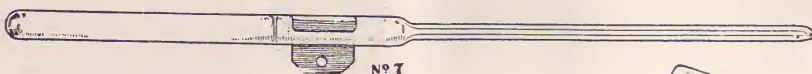
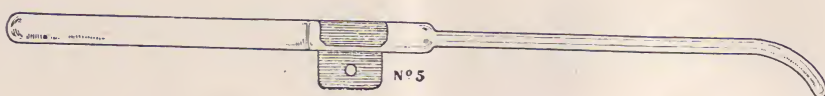
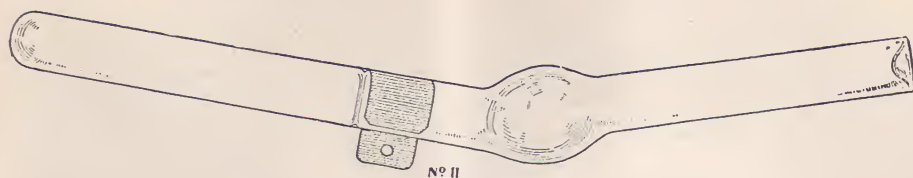
Special attention is called to the improved method of regulating the current in the electrode itself. It will be noticed that there is a copper clip on each electrode, for attaching the wire. This clip is movable. By slipping it down on the handle a half inch or more, the current in the electrode is weakened, and by slipping it up on the vacuum part, the current is strengthened. By this method of regulation, the strength of the current is under the absolute control of the operator.

It will also be noticed that the handle forms a part of each electrode, thus making it rigid and reducing the liability of breakage. Electrodes of this kind are more substantial and last better than any other kind. The handle contains no vacuum.

Electrodes Nos. 17 and 18 are especially fine in color effects. In ordering, please specify colors desired. They can be furnished in green, blue, red, or purple.

No. 14	For general application . . .	\$2.00.	Code word, Kræmerin
No. 2	For vaginal application . . .	2.00.	Code word, Kræmpeln
No. 3	For rectal application . . .	2.00.	Code word, Kræmpe
No. 11	For vaginal application, with cupped end . . .	2.00.	Code word, Krænkende
No. 5	For urethral application, with curved end . . .	2.00.	Code word, Krænker
No. 7	For urethral application, straight, . . .	2.00.	Code word, Krænklich
No. 15	For eye application . . .	2.00.	Code word, Krænkung
No. 16	Double Eye Electrode . . .	2.00.	Code word, Krætzze
No. 19	Hammer Electrode . . .	2.00.	Code word, Krætzig
No. 18	Geissler Electrode, for general tonic treatment . . .	2.00.	Code word, Kourilien
No. 17	(Not so highly colored as No. 18)	2.00.	Code word, Kourgan
No. 1	For use around the spine. Shaped like a tuning fork . . .	2.00.	Code word, Krænseln
	One pair Metal Handles and Cords . . .	1.00.	
	Set of ten Electrodes, Metal Handles and Cords, . . .	20.00.	Code word, Krænzen

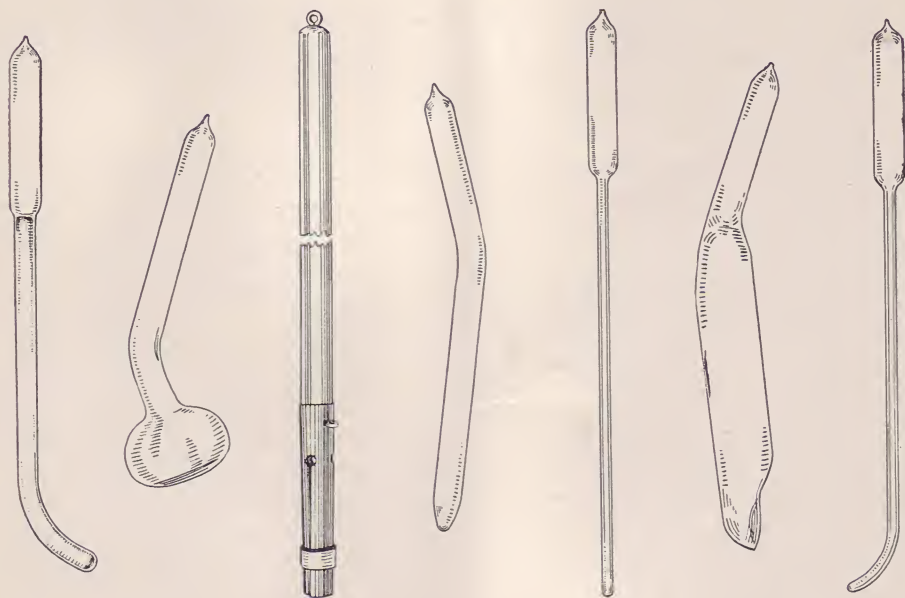
Electrode No. 19 is most useful, as its shape permits of its being used for a great variety of work.



Vacuum Electrodes

S W E T T & L E W I S C O M P A N Y

To meet the demand for vacuum electrodes to fit into a common handle, we have produced the following set of six of the ones most used. The general design is the same as of those illustrated, except that the electrodes are made lighter, and as short as possible, and yet retain the good features.



The electrodes are as follows:

	Handle	\$1.25.	Code word, Koulbac
No. 3A	Rectal (without bulb)	1.25.	Code word, Kouler
No. 5A	Urethral, curved	1.25.	Code word, Koulougli
No. 7A	Urethral, straight	1.25.	Code word, Koumiss
No. 11A	Vaginal, with cupped end	1.25.	Code word, Koupara
No. 14A	General external work	1.25.	Code word, Koupholite
No. 20A	Eustachian	1.25.	Code word, Kourakin

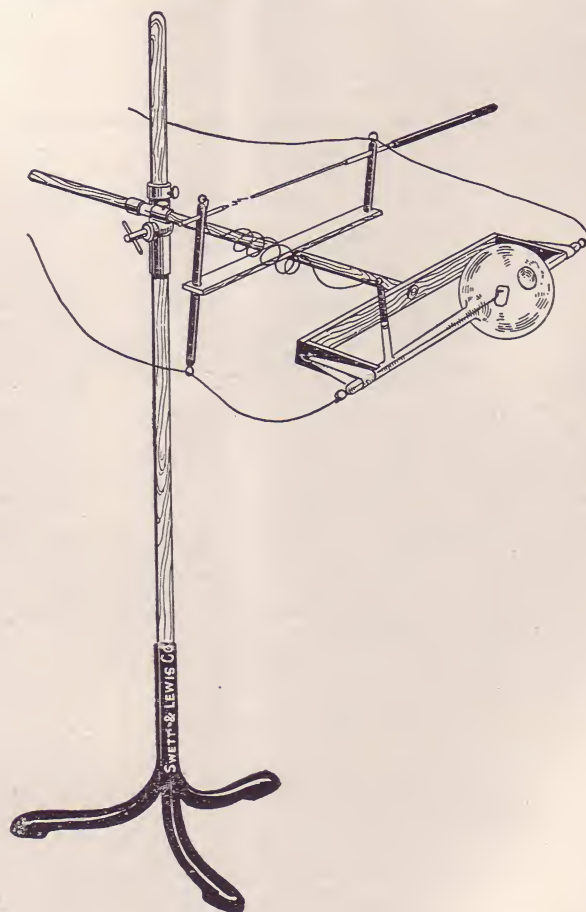
A firm insulating handle, fitted with a universal coupling, will complete the set.

Price for Set and Handle	\$5.00.	Code word, Koukarien
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Special electrodes for any purpose, and of any shape, to order; price on application.

Tube Stands

In connection with the adjustable vacuum tubes using the chemical adjuster, and with those used with the Kinraide Coil, we would advise the floor tube stand shown in cut, as it has in combination with it a regulator so arranged that the vacuum in the tube may be held at any point desired.



Floor Tube Stand, with Adjustable Spark Gap,	\$10.00	Code word, Finados
Set of Cords, heavily insulated	1.00	Code word, Finances
Small Wood Tube Stand	2.00	Code word, Finage
Arm, 3 feet long, for use in place of ball and point in stand usually furnished with static machines	1.50	Code word, Finalista



Multiple Spark Interrupter

This device is specially valuable in running X-ray tubes from static machines. By its use a very low or very high vacuum tube may be made to light up in a fine manner, and is under instant and complete control of the operator.

Price each, complete, with full working
directions \$5.00. Code word, Clisobra

Books

Electro-Static Modes of Application, Therapeutics, Radiography and Radiotherapy, by William Benham Snow, M.D. Price,	\$3.00
High-Frequency Currents in the Treatment of Some Diseases, by Chisholm Williams, F.R.C.S. Edinburgh. Price,	2.75
Electro-Therapeutical Practice, by Chas. S. Neiswanger, Ph.G., M.D. Price,	1.50
Medical and Surgical Uses of Electricity, including the X-Ray, Finsen Light, Vibratory, Therapeutics and High-Frequency Currents, by A. D. Rockwell, A.M., M.D. Price,	5.00
Advanced Therapeutics. A Journal devoted to Electro-Therapeutics, Radiography, Thermo-Therapeutics, Hydro-Therapeutics, Climatology and Therapeutic Exercise. Price, per year,	2.00
Archives of the Roentgen Ray (London.) Price, per year,	4.00
Any of the above will be sent to any address, postage paid, on receipt of order. Cash must accompany the order.	

Announcement

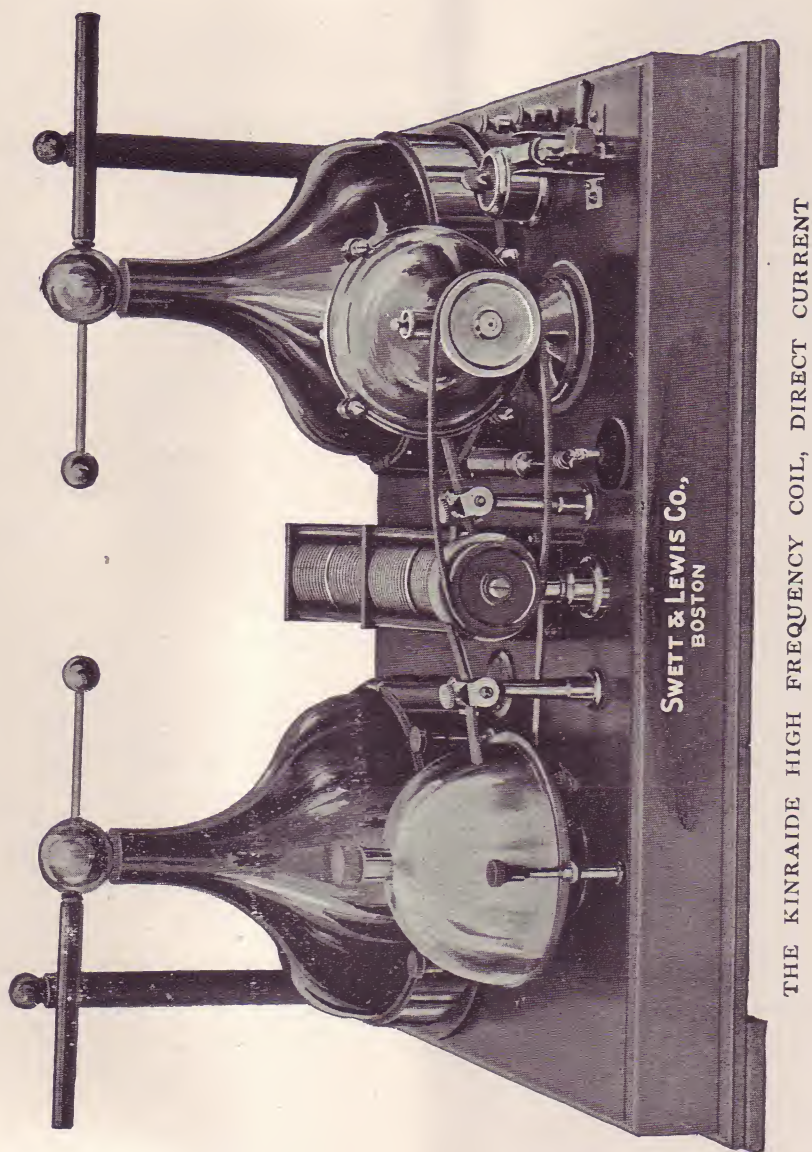
Your attention is respectfully called to the change in price of the Kinraide Coil and Coil Tubes. Owing to the very great demand for this apparatus, the inventor, Mr. Kinraide, has received more in royalties for his patents than was expected, and he has very kindly consented to give the medical profession the benefit of this. On our part, we, too, are making a reduction. We are able to do this largely for the reason that a number of very expensive moulds and special pieces of machinery which were necessary in order to manufacture the apparatus, have paid for themselves, making the cost of production much less. The apparatus is manufactured on the duplicate plan, all parts being interchangeable where possible, and made in large quantities. We hope that our efforts will be appreciated, and that you will continue to favor us with your orders. We wish to assure you that the quality will be fully maintained in the future, as in the past, and that the Coil will not be cheapened in any way.

Guarantee

With each Coil furnished, a guarantee will be given against any defect in workmanship or material, or against burn out in any way, for one year from date of shipment.

Construction

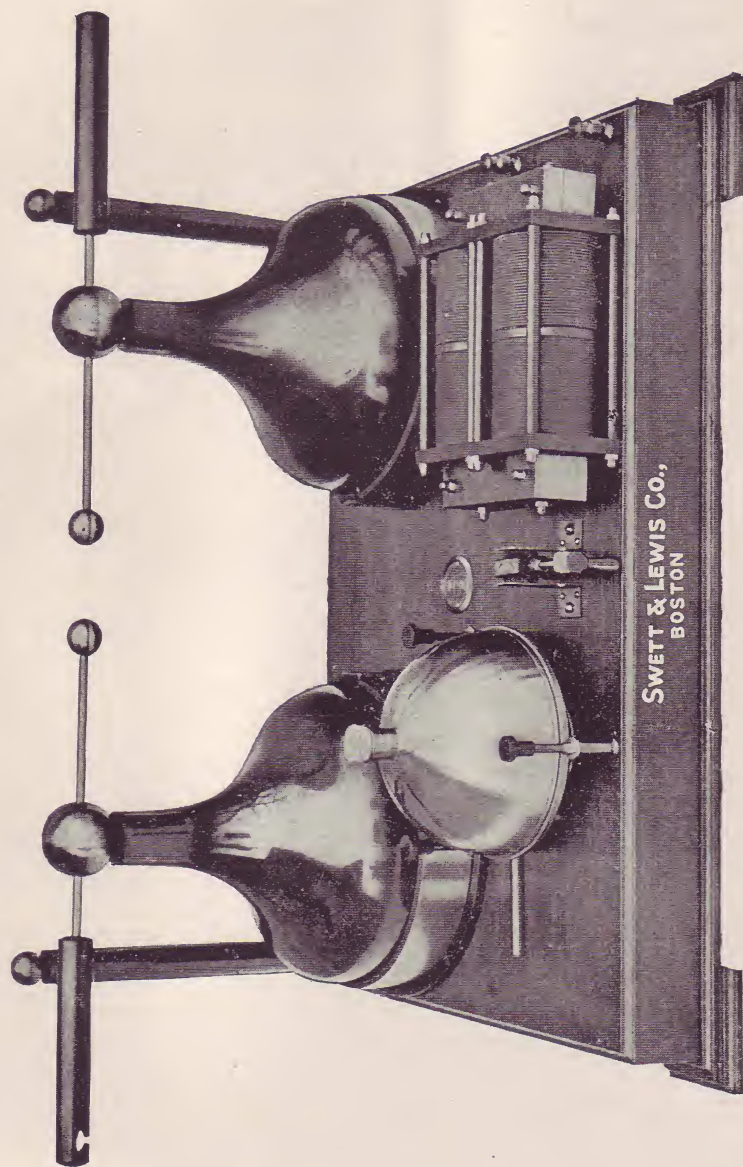
For full particulars regarding the construction of the Coil, we would refer you to pages 3 to 9, Bulletin No. 28. This Coil is one of the simplest pieces of X-ray



apparatus yet put before the medical public. It is not only simple, but light, strong and compact. Owing to the peculiar method of construction, it is impossible to burn out or break down the Coil. This is a very important feature, and one that should be fully appreciated, as a burned-out or broken-down coil is an expensive thing to repair, and cannot be quickly done. This is specially important if you are a long way from base of supplies. A radical change is made in the construction of this Coil over that of all others, inasmuch as the primary is placed outside the secondary. The lines of force in the secondary all tend inward, which places the primary beyond the range of any high potential currents, and therefore it is not possible for a spark to jump to it, thus making it impossible to break down the secondaries. The Coils are manufactured for direct currents of all voltages from 110 to 500, and for all commercial alternating circuits. There need be no fear of the alternating current Coils not working with perfect satisfaction. A great advantage that the alternating Kinraide Coil has is in the fact that no mercury or electrolytic interrupter is used. The above are all more or less troublesome and have many objectionable features. The interrupter on the Kinraide Coil is very simple, easy of adjustment and is very durable. It consists of two large copper discs controlled by a small lever. An extremely small amount of current is used, so that the cost of operation is very slight. The entire apparatus is readily portable, and can be transported without risk of breakage. Full instructions for use are furnished. No extra wiring is necessary, as the Coil may be connected to any lamp socket.

Discharge

The current delivered from the Coil is of great volume, and of extremely high voltage, making it easy



THE KINRAIDE HIGH FREQUENCY COIL, ALTERNATING CURRENT

to do the finest kind of X-ray work, both in radiography and X-ray therapy. Another great advantage is that the current generated by the Coil is of the true high frequency variety, making no further piece of apparatus necessary, as this current may be applied direct to the patient, and all of the high frequency effects produced, either by means of vacuum or other electrodes, list of which is given on pages 14 to 16.

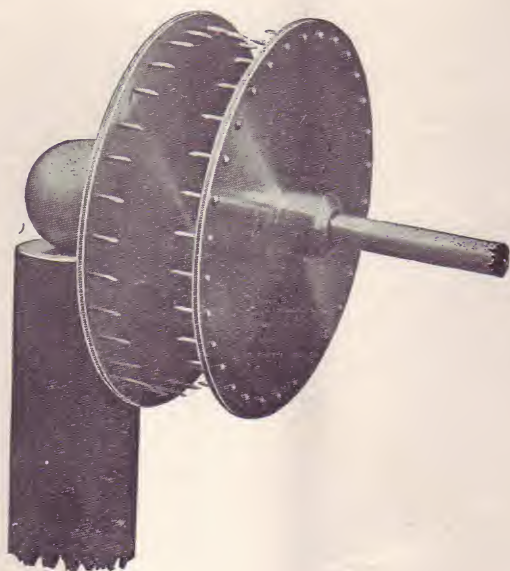
Control

By means of the rheostat, the current drawn from the Coil may be held under the absolute control of the operator, he being able to get anything from a spark about an inch long, and of very small volume, to the entire capacity of the Coil. This rheostat should be used on all Coils, and it is not only a help to the operator when using the vacuum electrodes, but it is of great assistance when manipulating X-ray tubes. The current is under the complete control of the operator at all times, and there is absolutely no danger of giving an unpleasant shock to the patient. The current delivered from the vacuum electrodes is smooth and even, and can be varied at will from the very lightest, which is entirely imperceptible to the patient, to one so strong as to produce the most violent contractions.

Points of Superiority

A few of these points are durability, reliability, simplicity, great power, low price, small cost of operation, portability, readiness for work, and the fact that it is not only a powerful X-ray generator, but also a high frequency machine as well. The combined Coil and Ultra Violet apparatus is the most compact, strongest and most powerful yet invented.

Spark Regulator for Coil



The cut shown above gives a good idea of this very useful attachment. It was designed specially for use with the Kinraide Coil, but may be used with any coil. Its special use is to introduce a resistance into the circuit with the patient or electrode, while using the high frequency electrodes. By its use the current may be regulated with great exactness.

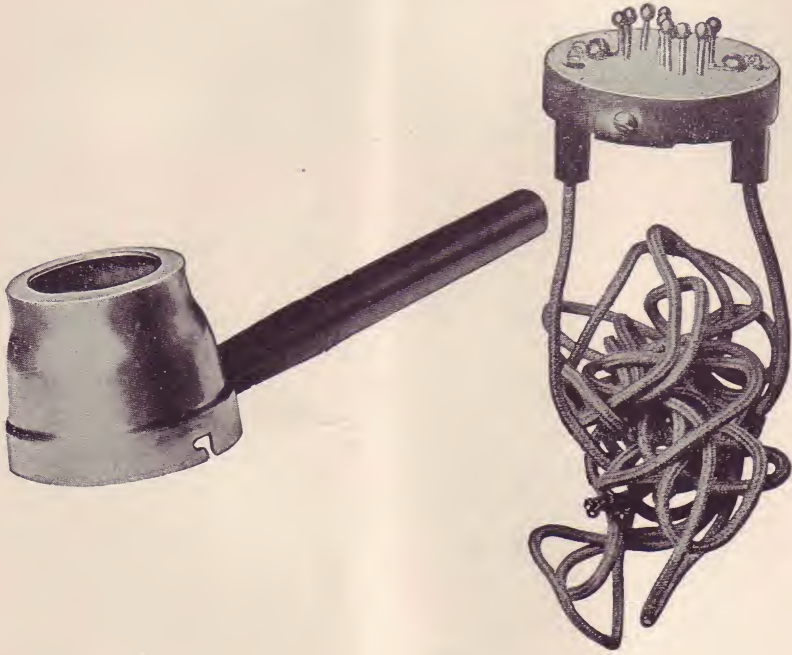
Price	\$4.00 per pair.	Code word, Clisson
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X-Ray Plates

5	x 7	\$1.40 per dozen.	Code word, Einhergang
6½	x 8½	2.30 per dozen.	Code word, Einhuellen
8	x 10	.	.	.	.	.	3.40 per dozen.	Code word, Einimpfen
10	x 12	.	.	.	.	.	5.50 per dozen.	Code word, Einjährig
11	x 14	.	.	.	.	.	7.00 per dozen.	Code word, Einjagen

A supply of the above sizes always in stock. These plates are specially wrapped in light proof paper, no plate holder being required for use with the X-ray.

Spark Lamp to Produce Ultra Violet Rays



The lamp is very simple, cannot get out of order, and may be run from a Kinraide Coil or static machine direct, without difficulty.

The base of the lamp is of slate. Cords are heavily insulated, so that there is no danger of the patient getting a shock by contact. The top is of brass, nicely nickeled. A hard rubber handle is attached so that the patient or operator may conveniently hold the lamp in position. The balls, across which the spark passes, are of iron. The lens is of the finest crystal and may be easily detached for the purpose of cleaning.

The whole lamp may be readily rendered antiseptic, as nothing but metal and crystal are brought near

the patient. It is almost noiseless in its operation, and may be held against the affected part in such a manner as to produce compression. In selecting a lamp, great care should be taken, as many lamps of this character are put out with glass lenses, which are almost, if not quite, opaque to the Ultra Violet ray.

Price, complete with attaching cords, \$10.00

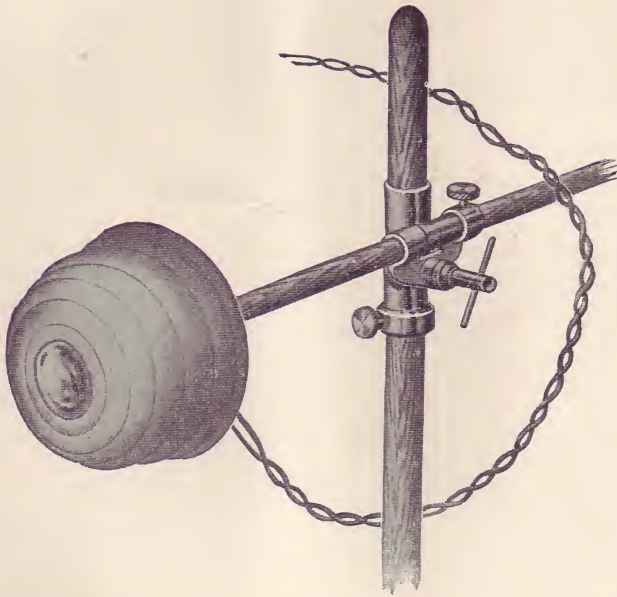
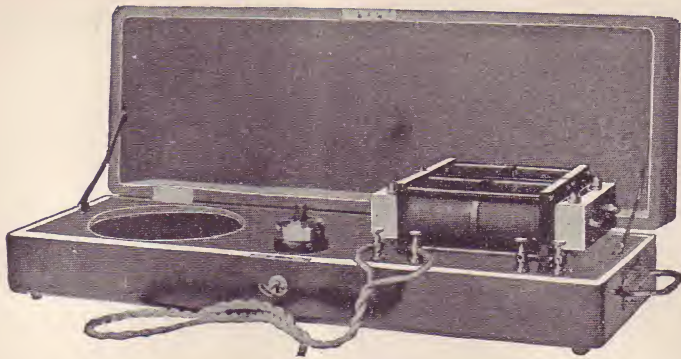
Code word. Oggerunt

Full directions for use accompany each lamp.

Ultra Violet Effects

For more powerful effects the lamp manufactured by us, and which we call the Ultra, may be used by all who can obtain the alternating current. This wonderful piece of apparatus generates the true Ultra Violet rays with but few light rays. The lamp is, in reality, a modification of and improvement over the lamp known abroad as the "Bangs," but it is at least twice as powerful. There, it is claimed that the "Bangs" lamp has an efficiency varying from sixteen to sixty times that of the large arc lamps originally used for this purpose. In bringing out this lamp, we have placed in the hands of the physician an instrument of the highest power, and one that is fast winning a reputation for itself in this country. We have taken advantage of the fact that condenser currents of high voltage, when used in connection with iron electrodes, will produce the Ultra Violet rays with few light or heat rays.

This is really a diminutive arc lamp, entirely enclosed in a nice nickel case, and having in front a fine rock-crystal lens, which is perfectly transparent to the Ultra Violet ray. Instead of carbons, the electrodes of the lamp are of iron. They are regulated by a small thumb-screw at the back of the lamp, and are very easily adjusted. The lamp runs very quietly; with the



case removed a slight humming is heard. This lamp may be supported by any available stand. It is, however, designed with special reference to the floor stand illustrated on page 17 of this bulletin.

In connection with this stand, the lamp may be placed at any angle or height, and rotated in any direction with ease. The patient may be brought near to or touching the lens, so that the rays may be brought into direct contact with the desired area. Very little heat is generated and no cooling or color-

ing device is necessary. The whole case of the lamp may be readily detached and boiled for the purpose of sterilization if desired.

Few light rays are given off, but the arc is very rich in invisible Ultra Violet rays, so much so that the eyes must be protected with glasses or some opaque substance at all times when near the lamp. Tests show that this lamp produces many times the quantity of the true Ultra Violet rays generated by any other lamp on the market, not excepting the largest arcs in use. This, too, at very small expense.

The cost of running a lamp of this sort will not exceed six to eight cents per hour at the average cost of the electric light, while a large arc lamp may cost as much as two dollars for the same time, besides necessitating special wiring and fixtures.

Twelve extra electrodes and full instructions for use go with each lamp.

Price complete, as shown in cut, with stand for supporting lamp	\$110.00
Price without stand	100.00

A special stand is furnished with this lamp. The stand is of brass, very nicely finished, and allows the lamp to be held in any desired position.

Lamp now built for alternating current only.

The lamp which forms a part of this apparatus can be attached to any Kinraide Coil, run on the alternating circuit. It will, however, be necessary to send the Coil to our factory in order to have the necessary switches put on and changes made. This can be done without detriment to the working of the Coil. This lamp cannot be applied to the direct current Coils.

Ultra Lamp, connecting cord, switches, and all necessary attachments fitted to any alternating current Kinraide Coil, new or old, for	\$50.00
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Freight or express charges to be paid by owner of Coil.

SWEET & LEWIS COMPANY

For the Coil and Ultra combination, prefix the letter U to the Code Word for the coil of proper voltage and cycle. Thus: UKoperig, meaning a Kinraide Coil and Ultra combined and designed to run on a circuit of 52 volts and 7200 alternations.

Price List

COILS

The Kinraide Induction Coil	\$130.00
(Direct and alternating currents of all voltages from 110 to 250)	
500-Volt Coils, extra	20.00
Alternating Current Coil and Ultra combined	175.00

CODE WORDS

52 volts, 7,200 Alternations	Koperig
104 volts, 7,200 Alternations	Kopernikus
110 volts, 7,200 Alternations	Koperkies
52 volts, 16,000 Alternations	Koperkleur
110 volts, 16,000 Alternations	Kopermolen
110 volts, 15,000 Alternations	Kopermunt
110 volts, Direct Current	Intardatum
220 volts, Direct Current	Intardetis
235 volts, Direct Current	Intarlando
250 volts, Direct Current	Intarlare
500 volts, Direct Current	Intarlato

TUBES

K Tube for Direct Current Coil (code word, Delustro)	\$12.00
H Tube for Alternating Current Coil only (code word, Delusively)	14.00
Insulating Cords, for connecting Tubes, per set	1.00

An allowance, towards the price of new apparatus, will be made for the return of the complete terminals of either of the above tubes. See page 9.

FLUOROSCOPES

Platinum Barium Cyanide Fluoroscope, 4 x 5 (code word, Eapse)	\$ 8.00
Platinum Barium Cyanide Fluoroscope, 5 x 5 (code word, Earinus)	10.00
Platinum Barium Cyanide Fluoroscope, 5 x 7 (code word, Earshrif)	12.50
Platinum Barium Cyanide Fluoroscope, 6 x 6 (code word, Earthiness)	13.00
Platinum Barium Cyanide Fluoroscope, 6 x 8 (code word, Earthling)	16.00
Platinum Barium Cyanide Fluoroscope, 8 x 10 (code word, Earthly)	24.00

F L O O R T U B E S T A N D

Floor Tube Stand, with Adjustable Spark Gap (code word, Finados) \$10.00

A Finely Polished Quartered Oak Table large enough for either of the foregoing outfits, and equipped with ball-bearing castors (code word, Firmandos)	12.00
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[illegible]

Block Tin for X-Ray Shields (code word, Blemmyer) per lb.25
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This material comes fifteen inches wide and a strip three feet long makes a pound.

In using code words for outfits prefix the code word denoting voltage, etc., of coil. See page 29.

(Code word, Unpublic)

One Direct Current Kinraide Coil	\$130.00
Two Tubes, Type K	24.00
One 5 x 7 Platinum Barium Cyanide Fluoroscope	12.50
One Floor Tube Stand	10.00
One Rheostat	8.00
	<hr/>
	\$184.50

(Code word, Vestifluam)

One Alternating Current Kinraide Coil	\$130.00
Two Tubes, Type H	28.00
One 5 x 7 Platinum Barium Cyanide Fluoroscope	12.50
One Floor Tube Stand	10.00
One Rheostat	8.00
	<hr/>
	\$188.50

S W E T T & L E W I S C O M P A N Y

O U T F I T N U M B E R T H I R T Y - F I V E

(Code word, Unpunished)

For Direct Current :

One Direct Current Kinraide Coil	\$130.00	
Two Tubes, Type K	24.00	
One 6 x 8 Platinum Barium Cyanide Fluoroscope	16.00	
One Rheostat	8.00	
One Floor Tube Stand	10.00	
Four pounds of Block Tin	1.00	
One pair of Spark Regulators	4.00	
One set of six Vacuum Electrodes	5.00	
		<hr/> \$198.00

O U T F I T N U M B E R T H I R T Y - S I X

(Code word, Vestigabas)

For Alternating Current :

One Alternating Current Kinraide Coil	\$130.00	
Two Tubes, Type H	28.00	
One 6 x 8 Platinum Barium Cyanide Fluoroscope	16.00	
One Rheostat	8.00	
One Floor Tube Stand	10.00	
Four pounds of Block Tin	1.00	
One pair of Spark Regulators	4.00	
One set of six Vacuum Electrodes	5.00	
		<hr/> \$202.00

O U T F I T N U M B E R T H I R T Y - S E V E N

(Code word, Timindos)

For Alternating Current :

One Alternating Current Kinraide Coil and Ultra Violet Apparatus combined	\$175.00	
Two Tubes, Type H	28.00	
One 5 x 7 Platinum Barium Cyanide Fluoroscope	12.50	
One Floor Tube Stand	10.00	
One Rheostat	8.00	
		<hr/> \$233.50

O U T F I T N U M B E R T H I R T Y - E I G H T

(Code word, Tronconner)

For Direct Current :

One 500 Volt Kinraide Coil	\$150.00	
Two Tubes, Type K	24.00	
One 5 x 7 Platinum Barium Cyanide Fluoroscope	12.50	
One Floor Tube Stand	10.00	
One Rheostat	15.00	
		<hr/> \$211.50

S W E T T & L E W I S C O M P A N Y

O U T F I T N U M B E R T H I R T Y - N I N E

(Code word, Timenoguy)

For Alternating Current:

One Alternating Current Kinraide Coil and Ultra Violet Apparatus combined	\$175.00	
Two Tubes, Type H	28.00	
One 6 x 8 Platinum Barium Cyanide Fluoroscope	16.00	
One Floor Tube Stand	10.00	
One Rheostat	8.00	
One Quartered Oak Table	12.00	
One pair of Spark Regulators	4.00	
One set of Vacuum Electrodes	5.00	
		<hr/> \$258.00

O U T F I T N U M B E R F O R T Y

(Code word, Timeous)

One Alternating Current Kinraide Coil and Ultra Violet Apparatus built on a fine cabinet	\$225.00	
Two Type H Tubes	28.00	
One 6 x 8 Platinum Fluoroscope	16.00	
One Floor Tube Stand	10.00	
One Rheostat	8.00	
One set of ten Electrodes all glass	20.00	
		<hr/> \$307.00
Without Ultra Violet Attachments (code word, Timeously)		\$262.00

O U T F I T N U M B E R F O R T Y - O N E

(Code word, Unpurged)

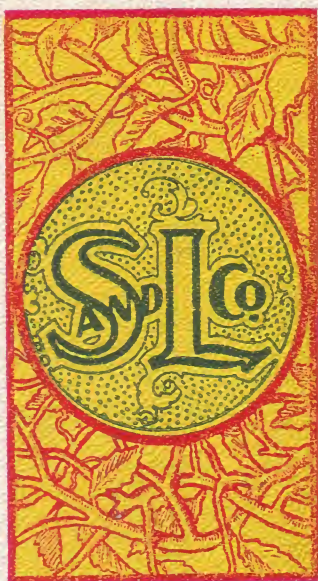
One Direct Current Kinraide Coil built on a fine cabinet	\$180.00	
Two Type K Tubes	24.00	
One Floor Tube Stand	10.00	
One 6 x 8 Platinum Fluoroscope	16.00	
One Rheostat	8.00	
One set of ten Electrodes all glass	20.00	
		<hr/> \$258.00

The Cabinet used in above outfits is of quartered oak, finely finished, its top forming the base for the coil, which cannot be removed.

Drawers are furnished to hold tubes, electrodes, and supplies.

The whole is mounted on large rubber-covered rollers.

This makes a very fine and impressive instrument, and is an ornament to any office.



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